

FORM PCT 1390  
REV. 5/93

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NO  
SCHNELL-2 (PCT)TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

U.S. APPLICATION NO (if known, see 37 CFR 1.5)

**09/937696**INTERNATIONAL APPLICATION NO  
PCT/DE00/01103INTERNATIONAL FILING DATE  
APRIL 7, 2000PRIORITY DATE CLAIMED  
APRIL 26, 1999

TITLE OF INVENTION

DEVICE FOR CODING AND MARKING OBJECTS

APPLICANT(S) FOR DO/EO/US

WOLFGANG SCHNELL

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371 (f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau)
  - b. ☐ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has **NOT** expired.
  - d. ☐ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

**Items 11. to 16. below concern other document(s) or information included:**

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A **FIRST** preliminary amendment.  
☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:

PCT/ISA/210 - Int'l. Search Report  
3 Sheets of Formal Drawings

Applicant Claims Priority under 35 U.S.C. §119 of German Application No. 199 18 933.1 filed April 26, 1999.

Applicant Claims Priority under 35 U.S.C. §120 of: PCT No. PCT/DE00/01103 filed April 7, 2000.

APPLICATION NO. (if known, see 37 CFR 1.5)

**09/937696**INTERNATIONAL APPLICATION NO  
PCT/DE00/01103ATTORNEY'S DOCKET NO  
SCHNELL-2 (PCT)☒ The following fees are submitted.**Basic National Fee (37 CFR 1.492(a)(1)-(5)):**Search Report has been prepared by the EPO or JPO. .... **\$860.00**☒ International preliminary examination fee paid to USPTO (37 CFR 1.482)..... **\$690.00**Neither international preliminary examination fee paid (37 CFR 1.82) nor  
international search fee (37 CFR 1.445(a)(2)) paid to USPTO..... **\$1,000.00**International preliminary examination fee paid to USPTO (37 CFR 1.482)  
and all claims satisfied provisions of PCT Article 33(2)-(4)..... **\$100****ENTER APPROPRIATE BASIC FEE AMOUNT =****\$ 860.00**Surcharge of **\$130.00** for furnishing the oath or declaration later than \_\_\_\_ 20 \_\_\_\_ 30  
months from the earliest claimed priority date (37 CFR 1.492(e)).

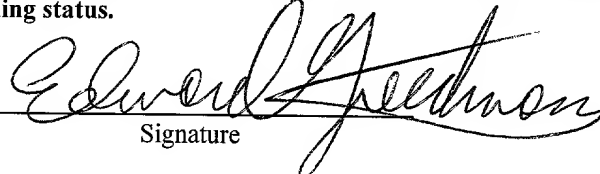
Claims	Number Filed	Number Extra	Rate		
Total Claims	9 - 20 =	- 0 -	X <b>\$18.00</b>	\$	
Independent Claims	1 - 3 =	- 0 -	X <b>\$80.00</b>	\$	
Multiple dependent claim(s) (if applicable)			+ <b>\$270.00</b>	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				<b>\$ 860.00</b>	
Reduction by 1/2 for Small Entity status.				\$	
<b>SUBTOTAL =</b>				<b>\$ 860.00</b>	
Processing fee of <b>\$130.00</b> for furnishing the English translation later than ____ 20 ____ 30 months from the earliest claimed priority date (37 CFR 1.492(f))				\$	
<b>TOTAL NATIONAL FEE =</b>				<b>\$ 860.00</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00 per property</b> +				See cover sheet attached to assign \$ to be charged to Deposit Acct	
<b>TOTAL FEES ENCLOSED =</b>				<b>\$ 860.00</b>	
				Amount to be: refunded	\$
				charged	\$

Applicant claims Small Entity status.

- a. ☒ A check in the amount of **\$860.00** to cover the above fees is enclosed.
- b. \_\_\_\_ Please charge my Deposit Account No. 03-2468 in the amount of \$ \_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 03-2468. A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

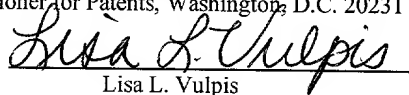
SEND ALL CORRESPONDENCE TO:  
COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576-1696  
(516) 365-9802

  
Signature

Edward R. Freedman  
Reg. No. 26,048

**Express Mail No. EL 871 448 142 US****Date of Deposit September 28, 2001**

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Ass't. Commissioner for Patents, Washington, D.C. 20231

  
Lisa L. Vulpis

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: WOLFGANG SCHNELL-2 (PCT)  
PCT No.: PCT/DE 00/01103 FILED: APRIL 7, 2000  
TITLE: DEVICE FOR CODING AND MARKING OBJECTS

PRELIMINARY AMENDMENT

**BOX PCT**

Ass't. Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Preliminary to Examination, please amend the above-identified application as follows:

IN THE SPECIFICATION

Page 1, after the title, please insert as follows:

--CROSS REFERENCE TO RELATED APPLICATIONS

Applicant claims priority under 35 U.S.C. §119 of German Application No. 199 18 933.1 filed April 26, 1999. Applicant also claims priority under 35 U.S.C. §120 of PCT/DE00/01103 filed April 7, 2000. The international application under PCT article 21(2) was not published in English.--

IN THE CLAIMS

Please cancel original claims 1-9 and replace with new claims 10-18 as follows:

--10. A device for coding, i.e. identifying and addressing as well as marking objects, in particular objects made of plastics, rubber or materials similar to rubber, whereby the device comprises at least the following components:

- a coding and marking system (1, 1', 1'', 1'''); and
- a scanner unit with the help of which the coding and marking is detected and read out within contact;

characterized in that

- the coding and marking system (1, 1', 1'', 1''') is completely embedded in the object, in a manner such that the outer shape and the function of the object are not impaired; and, furthermore that

- the scanner unit is moved passed the stationary object, or alternatively the object is moved passed the stationary scanner unit.

11. The device according to claim 10, characterized in that the coding and marking system (1, 1', 1'', 1''') comprises a matrix (3, 3', 3'', 3''') in particular made of plastic, rubber or a material similar to rubber, said matrix being embedded in

the object, whereby detectable material particles (2, 2', 2''), in particular metal pieces, permanent magnets (2''') or in particular dense or light plastic particles are in turn embedded in the matrix at exactly fixed intervals in relation to each other and with good adhesion and in an undisplaceable manner.

12. The device according to claim 10, characterized in that the coding and marking system comprises a matrix in particular made of plastic, rubber or a material similar to rubber, said matrix being embedded in the object, whereby magnetizable material, in particular ferrite material is admixed to the matrix, preferably with uniform distribution.

13. The device according to claim 11, characterized in that the matrix (3, 3', 3'', 3''') is adapted to the material-specific properties of the object.

14. The device according to claim 10, characterized in that the coding and marking system (1, 1', 1'', 1''') is present in the form of a strip, a circular segment or a cylindrical segment.

15. The device according to claim 10, characterized in that the coding and marking system (1, 1', 1'', 1''') is arranged within the object in one or more discrete zones.

16. The device according to claim 10, characterized in that it is used for coding and marking conveyor belts and conveyor belt connections.

17. The device according to claim 10, characterized in that it is used for coding and marking tubular bodies, in particular hoses, hose connections and compensators.

18. The device according to claim 10, characterized in that it is used for coding and marking profiled bodies, in particular large profiles, particularly again ship's fenders.--

Please add the Abstract, attached hereto on a separate sheet.

#### REMARKS

By this Preliminary Amendment, a cross-reference to related applications has been inserted in page 1. Original claims 1-9 have been replaced with new claims 10-18 so that the multiple dependency of certain of the dependent claims have been removed to avoid the surcharge associated therewith, and an Abstract is being provided. No new matter has been introduced. Entry of this amendment is respectfully requested.

Respectfully submitted,  
WOLFGANG SCHNELL

By: Edward R. Freedman  
Allison C. Collard, Reg. No. 22,532  
Edward R. Freedman, Reg. No. 26,048  
Attorneys for Applicant

COLLARD & ROE, P.C.  
1077 Northern Boulevard  
Roslyn, New York 11576  
(516) 365-9802

ERF/llv

Enclosure: Abstract

EXPRESS MAIL NO. **EL 871 448 142 US**

Date of Deposit: September 28, 2001

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above, and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Lisa L. Vulpis  
Lisa L. Vulpis

3/prt

## DEVICE FOR CODING AND MARKING OBJECTS

## Description

The invention relates to a device for coding, i.e. for the identification and addressing as well as marking of objects, in particular of objects made of plastic, rubber or materials similar to rubber, whereby the device comprises the following components, specifically

- a coding and marking system; as well as
- a scanner unit (detector) for the non-contact recognition and readout of the coding and marking.

It is often necessary to equip objects (products) with permanent identifications or markings, for example in order to identify (address) certain locations on such objects, or to provide such objects with a clear identification code or also with a date of manufacture. With suitable detection, such markings can be used both for the identification of the object, a defined location on such an object, and also for measuring, regulating and controlling purposes. For example, switching processes can be triggered or certain measurements can be carried out, and can be associated with a defined address that is generated by the marking system. The address or the code



itself can be used in this connection as the trigger; however, other triggers can serve for said purpose in connection with the code as well. A logical linking of the coding system with other signals that can be registered such as measured values or the date or time is possible as well.

Now, a device of the type specified above is introduced in patent DE 41 00 222 C2. A container is shown within the framework of FIG. 1 of said patent. The coding and marking system is located on the outer wall of said container similar to a bar code identification. The recognition and readout of the coding and marking take place without contact on the stationary object, notably by means of a scanner unit that is in the stationary condition as well. Now, if the coding and marking system attached to the surface of the object is damaged by rough conditions of use or even due to willful or malicious manipulation, the system is no longer capable of functioning, or can function only to a limited extent.

Other addressing or marking methods such as those operating by means of transponders (TIRIS, edition October 1993) start to fail at a certain speed because the reading process takes too long and the transponder has already left the range of the receiving antenna before its transmitted signal has been completely

transmitted. The transponder technology can be employed for technical measuring purposes on a fast-moving product only to a highly limited extent.

Therefore, the problem of the invention is to provide a device that excludes the drawbacks described above. Furthermore, the goal is that the device can be employed universally, i.e. that it is available for a wide spectrum of different types of product. Furthermore, the recognition and readout of the coding and marking must take place with great exactness in terms of time even if the object is moving at high speed irrespective of whether the movement takes place in a translocating or rotating manner.

Said problem is solved according to the characterizing part of claim 1 in that

- the coding and marking system is completely embedded in the object, notably in a manner such that that neither the outer shape nor the function are impaired; and that, furthermore,
- the scanner unit is moved past the stationary object, or alternatively the object is moved past the stationary scanner unit.

With respect to the embedding of the coding and marking system in the object, particularly the following two variations (A, B) are advantageous:

#### Variation A

The coding and marking system comprises a matrix in particular made of plastic, rubber or a material similar to rubber, that is embedded in the object, whereby detectable material particles, in particular small pieces of metal, permanent magnets or in particular dense or light plastic particles are in turn embedded in the matrix with an exactly fixed spacing in relation to each other and with good adhesion and in an undisplaceable manner.

A code can be generated based on the number and/or the spacing of the material particles (binary code).

The embedded material particles are embedded with adaptation to the intended movement of the object or the scanner unit. For example, an arrangement in rows is selected with a linear movement, whereas a circular arrangement is selected in connection with a rotational movement.

The special feature of the permanent magnets is discussed in greater detail in the following in connection with the description of the figures.

#### Variation B

The coding and marking system comprises a matrix in the present case as well, in particular a matrix made of plastic, rubber or a rubber-like material that is embedded in the object; however, as opposed to variation (A), a material that can be magnetized is admixed to the matrix, in particular a ferrite material, preferably with uniform distribution.

A code can be written in and also erased again in this connection by suitable magnetizing methods in a manner similar to magnetic tapes or magnetic disks or diskettes.

According to both variations (A, B), the matrix itself is adapted to the material-specific properties. If, for example, the object consists of the weather-resistant elastomer material EPDM (ethylene-propylene-diene copolymer), the matrix is structured from said material as well. Furthermore, the matrix is advantageously present in a form (strips, circular segments, cylindrical segments) that can be easily worked into the object involved as the latter is being produced. In this way, the coding and marking system is completely embedded in

the object, forming one unit with the latter, which is entirely opposed to the superficial coding and marking according to DE 41 00 222 C2.

The coding and marking system is arranged within the object in one or more discrete zones. The number, position and size of said zone or zones are dependent in this connection upon the size, shape and purpose of application of the object.

The device as defined by the invention is employed especially for coding and marking

- conveyor belts and conveyor belt connections;
- tubular bodies in particular such as hoses, hose connections and compensators; as well as
- profiled bodies, in particular large profiles, and particularly again fenders for ships;

and thus for products that heretofore have been accessible to a form of coding and marking only to a limited extent.

All physical principles by means of which the embedded material can be detected in terms of measurement technology are suitable for the detection by means of the scanner unit. Metal particles can be detected by means of inductive methods such as, for example the eddy current method, radar

waves or microwaves, or by means of ionized radiation by the through-radiation method. Dense or light plastic particles can be detected by means of ionized radiation (x-rays or  $\gamma$ -radiation) as well, or by means of ultrasound.

Reference is made to the description of the figures with respect to the detection of permanent magnets.

The invention is explained in the following with the help of exemplified embodiments and by reference to schematic drawings, in which:

FIG. 1 shows a cross section and a top view of a coding and marking system in the form of a strip.

FIG. 2 shows a top view of a coding and marking system in the form of a circular segment.

FIG. 3 shows a cross section of a coding and marking system in the form of a cylindrical segment.

FIG. 4 shows a cross section of a coding and marking system in the strip form, using a permanent magnet.

The following list of reference symbols applies in association with the above figures:

1,1',1'',1'''	Coding and marking system
2,2'2''	Embedded material particles (e.g. metal pieces)
2'''	Embedded permanent magnets
3,3',3'',3'''	Matrix
N	North magnetic pole
S	South magnetic pole
↑	Direction of magnetic field lines (fixed at random)

FIG. 1 shows a coding and marking system 1 in the form of a strip. The embedded material particles 2, for example pieces of metal, represent a code by their number and the pattern of their arrangement (row arrangement). The matrix 3, which completely encloses the material particles, is adapted to the object in terms of its material.

Said shape of a strip is used in particular with conveyor belts and conveyor belt connections, whereby the coding and marking system 1 is in this case advantageously embedded within the zone of the edge of the carrying and/or running side of the conveyor belt, if necessary embedded a number of times at defined intervals in the longitudinal direction of the conveyor belt.

According to FIG. 2, the coding and marking system 1' has the form of a circular segment, whereby the material particles 2' forming a code also in the present case are completely embedded in the matrix 3'.

A special purpose of application in the present case are flange-shaped hose connections.

FIG. 3 shows a coding and marking system 1'' present in the form of a cylindrical segment. The material particles 2'' representing a code in the present case as well are embedded in the matrix 3'' here as well.

Said embodiment is preferably applied in conjunction with hoses, whereby the coding and marking system 1'' is particularly embedded within the top layer of the hose, if necessary at defined intervals in the longitudinal direction of the hose.

According to FIG. 4, the permanent magnets 2''' are embedded in the strip-shaped matrix 3''', notably with formation of the coding and marking system 1'''.

A code based on three different conditions can be generated with the permanent magnets as well, specifically as follows: north magnetic pole N directed at the detector, south magnetic pole S directed at the detector and no magnet



present. Permanent magnets can be detected by means of all commonly used magnet-sensitive methods, for example such as magnetic inductive methods, magnetoresistive sensors, or sensors based on the Hall effect, to mention a few.

## Claims

1. A device for coding, i.e. identifying and addressing as well as marking objects, in particular objects made of plastics, rubber or materials similar to rubber, whereby the device comprises at least the following components:

- a coding and marking system (1, 1', 1'', 1'''); and
- a scanner unit with the help of which the coding and marking is detected and read out within contact;

characterized in that

- the coding and marking system (1, 1', 1'', 1''') is completely embedded in the object, in a manner such that the outer shape and the function of the object are not impaired; and, furthermore that
- the scanner unit is moved passed the stationary object, or alternatively the object is moved passed the stationary scanner unit.

2. The device according to claim 1, characterized in that the coding and marking system (1, 1', 1'', 1''') comprises a matrix (3, 3', 3'', 3''') in particular made of plastic, rubber or a material similar to rubber, said matrix being embedded in the object, whereby detectable

material particles (2, 2', 2''), in particular metal pieces, permanent magnets (2''') or in particular dense or light plastic particles are in turn embedded in the matrix at exactly fixed intervals in relation to each other and with good adhesion and in an undisplaceable manner.

3. The device according to claim 1, characterized in that the coding and marking system comprises a matrix in particular made of plastic, rubber or a material similar to rubber, said matrix being embedded in the object, whereby magnetizable material, in particular ferrite material is admixed to the matrix, preferably with uniform distribution.

4. The device according to claim 2 or 3, characterized in that the matrix (3, 3', 3'', 3''') is adapted to the material-specific properties of the object.

5. The device according to any one of claims 1 to 4, in particular in association with the matrix (3, 3', 3'', 3''') according to any one of claims 2 to 4, characterized in that the coding and marking system (1, 1', 1'', 1''') is present in the form of a strip, a circular segment or a cylindrical segment.

6. The device according to any one of claims 1 to 5, characterized in that the coding and marking system (1, 1',

1'', 1''') is arranged within the object in one or more discrete zones.

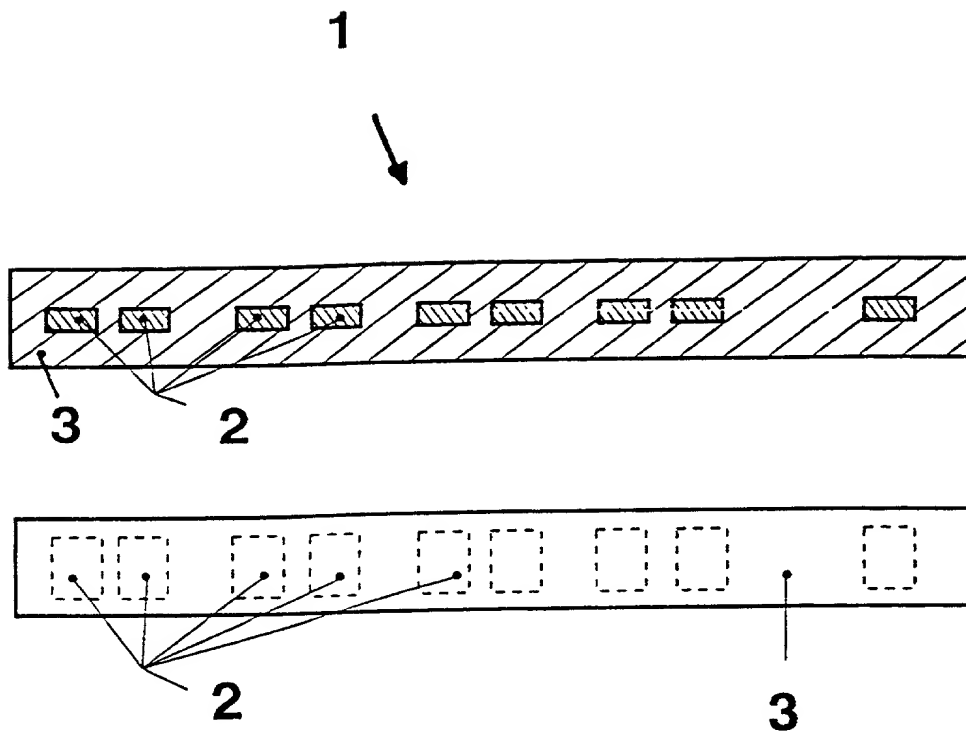
7. The device according to any one of claims 1 to 6, characterized in that it is used for coding and marking conveyor belts and conveyor belt connections.

8. The device according to anyone of claims 1 to 6, characterized in that it is used for coding and marking tubular bodies, in particular hoses, hose connections and compensators.

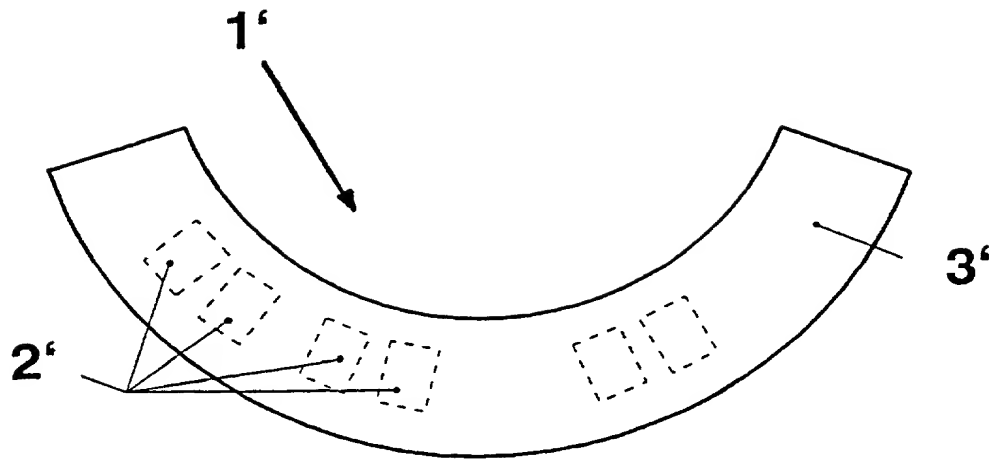
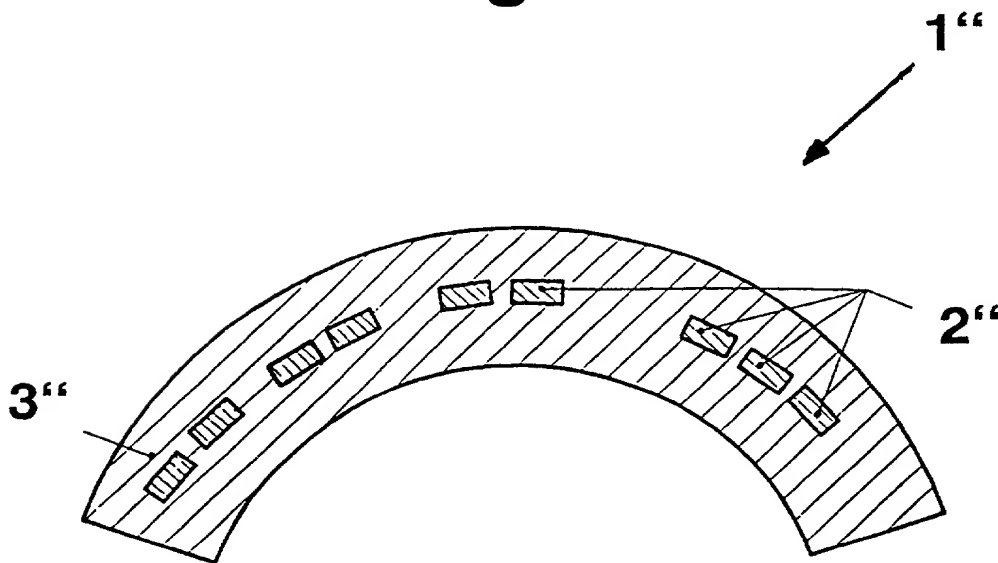
9. The device according to any one of claims 1 to 6, characterized in that it is used for coding and marking profiled bodies, in particular large profiles, particularly again ship's fenders.

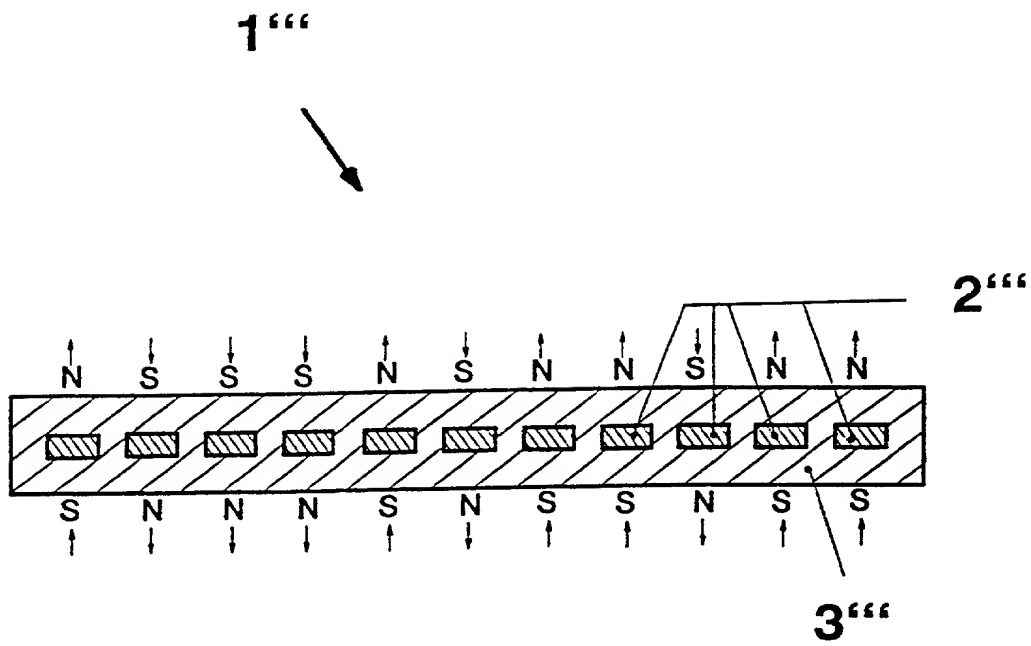
R:\Ingrid\email\Schnell-2 PCT transl.

1/3

**Fig. 1**

2/3

**Fig. 2****Fig. 3**

**Fig. 4**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**DEVICE FOR CODING AND MARKING OBJECTS**

the specification of which (check only one item below):

☐ is attached hereto.

☐ was filed as United States application

Serial No. \_\_\_\_\_

on \_\_\_\_\_,

and was amended

on \_\_\_\_\_ (if applicable).

☒ was filed as PCT international application

Number PCT/DE00/01103

on 7 APRIL 2000,

and was amended under PCT Article 19

on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:**

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. 119
GERMANY	199 18 933.1	26 APRIL 1999	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO



**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY**  
(Includes Reference to PCT International Applications)

ATTORNEY'S DOCKET NUMBER  
SCHNELL-2 PCT

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR  
BENEFIT UNDER 35 U.S.C. 120:

U.S. APPLICATIONS			STATUS (Check One)		
U.S. APPLICATION NUMBER	U S FILING DATE		PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.					
PCT APPLICATION NO	PCT FILING DATE	U S SERIAL NUMBERS ASSIGNED (if any)			

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration numbers):  
KURT KELMAN, Registration No. ~~18,628~~  
ALLISON C. COLLARD, Registration No. ~~22,532~~; WILLIAM C. COLLARD, Registration No. ~~38,411~~  
EDWARD R. FREEDMAN, Registration No. ~~26,048~~; FREDERICK J. DORCHAK, Registration No. ~~29,298~~  
ELIZABETH COLLARD RICHTER, Registration No. ~~35,103~~; REINE H. GLANZ, Registration No. ~~46,728~~

Send Correspondence to: COLLARD & ROE, P.C. Customer No. **25889** Direct Telephone Calls to:  
1077 Northern Boulevard (name and telephone number)  
Roslyn, New York 11576 (516) 365-9802

0	FULL NAME OF INVENTOR	FAMILY NAME <u>SCHNELL</u>	FIRST GIVEN NAME <u>WOLFGANG</u>	SECOND GIVEN NAME
	RESIDENCE & CITIZENSHIP	CITY <u>HAMBURG</u>	STATE OR FOREIGN COUNTRY GERMANY <u>DEX</u>	COUNTRY OF CITIZENSHIP GERMANY
1	POST OFFICE ADDRESS	POST OFFICE ADDRESS ROTBERGKAMP 10D	CITY D-21079 HAMBURG	STATE & ZIP CODE/COUNTRY GERMANY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201

DATE

5.9.01